

What is claimed is:

1. A plasma display panel comprising, above one of a pair of substrates facing each other across a discharge space,:

an electrode;

a dielectric layer covering the electrode;

a barrier rib provided on the dielectric layer, the barrier rib being parallel to the electrode; and

a phosphor layer provided to cover a side of the barrier rib and the dielectric layer between the barrier ribs, the phosphor layer including, at least at a surface thereof exposed to the discharge space, a recessed and projected part having one of width and depth that is more than a maximum particle diameter of a phosphor forming the phosphor layer.

2. The plasma display panel of claim 1, wherein the recessed and projected part has one of the width and depth that ranges from 5 μm to 10 μm .

3. The plasma display panel of claim 1, wherein the phosphor layer includes red, blue and green phosphor layers, and the recessed and projected parts of the phosphor layers have respective shapes varying from color to color.

4. A method of manufacturing a plasma display panel including, above a substrate, an electrode, a dielectric layer covering the electrode and a barrier rib provided parallel to the electrode on the dielectric layer, the method comprising the steps of:

making an organic binder by dissolving, through heating, an organic solvent and a plurality of resins having different solubilities with respect to the organic solvent;

making phosphor paste by mixing the organic binder with a phosphor particle;

forming a phosphor film by applying the phosphor paste between the adjacent barrier ribs;

drying the phosphor film between the barrier ribs; and

firing the phosphor film for burning out the organic binder.

5. The manufacturing method of claim 4, wherein the organic solvent is a solvent mixture of α -terpineol (α -TPO) and butyl carbitol (BCA), and the resins of different solubilities are ethyl celluloses of different ethoxyl contents.

6. The manufacturing method of claim 5, wherein the resins include ethyl cellulose having an ethoxyl content of 48 to 49.5% and ethyl cellulose having an ethoxyl content of 45.0 to 47.0%.

7. A method of manufacturing a plasma display panel including, above a substrate, an electrode, a dielectric layer covering the electrode and a barrier rib provided parallel to the electrode on the dielectric layer, the method comprising the steps of:

making a first organic binder by dissolving ethyl cellulose having an ethoxyl content of 48 to 49.5% and an organic solvent through heating;

making a first phosphor paste by mixing the first organic

binder with a phosphor particle;

forming a first phosphor film by applying the first phosphor paste between the adjacent barrier ribs;

making a second organic binder by dissolving ethyl cellulose having an ethoxyl content of 45.0 to 47.0% and an organic solvent through heating;

making a second phosphor paste by mixing the second organic binder with a phosphor particle;

forming a second phosphor film by applying the second phosphor paste to the first phosphor film;

drying the first and second phosphor films between the barrier ribs; and

firing the phosphor films for burning out the organic binders.

8. The manufacturing method of claim 7, wherein the organic solvent is a solvent mixture of α -terpineol (α -TPO) and butyl carbitol (BCA).

9. The manufacturing method of claim 4 or 7, wherein the firing step includes a plurality of temperature maintaining ranges for burning out the organic binder including the resins of different ethoxyl contents.